

LITHOGRAPHIC APPARATUS, LORENTZ ACTUATOR, AND DEVICE MANUFACTURING METHOD

ABSTRACT

A lithographic apparatus comprising a highly effective Lorentz actuator, is presented. The Lorentz actuator comprises a main magnet system and a subsidiary magnet system arranged in Halbach configuration, an electrically conductive element for producing a force via the interaction of an electric current carried by the electrically conductive element and a resulting field of the first and second magnetic field generated by the main and subsidiary magnet system, respectively. The actuator further comprises a magnetic element extending substantially between outer sides of the first and second magnet system subassemblies. The magnetic element guides a portion of the second, subsidiary field between the first and second magnet system subassemblies.